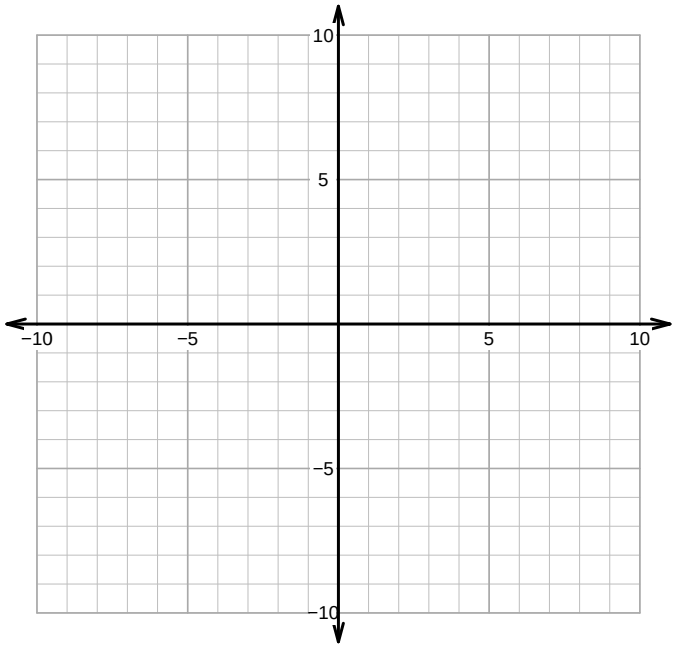
Name: _____

PCW_1015: Parent Transformations and Feature Locations

1. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

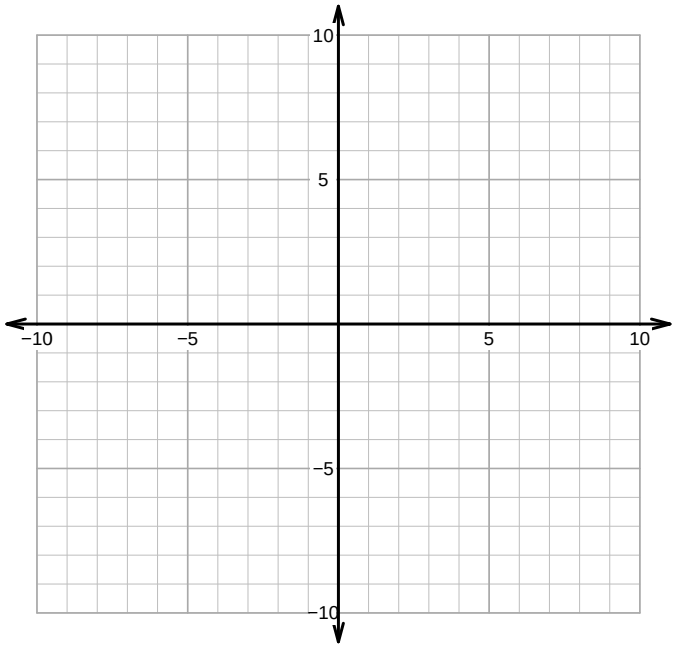
$$y = 2 \cdot \sqrt{5 - x} - 4$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	

2. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

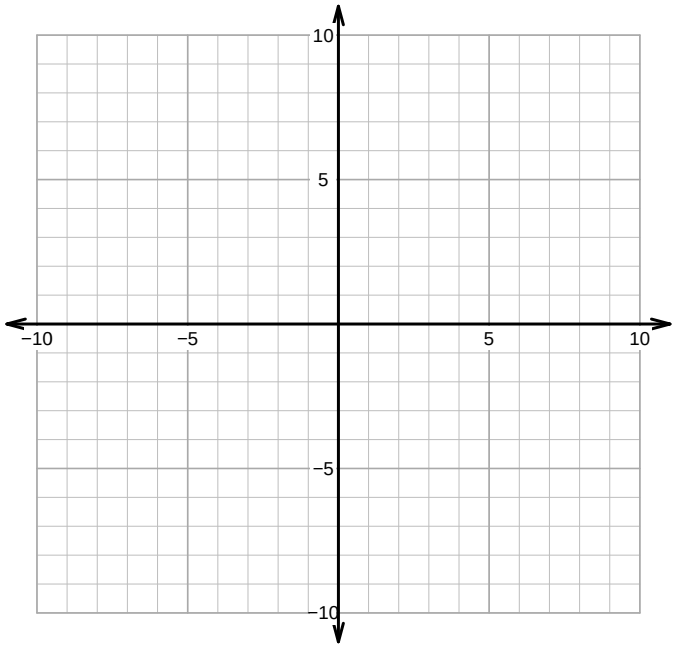
$$y = -\sqrt{x+4}+1$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	

3. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

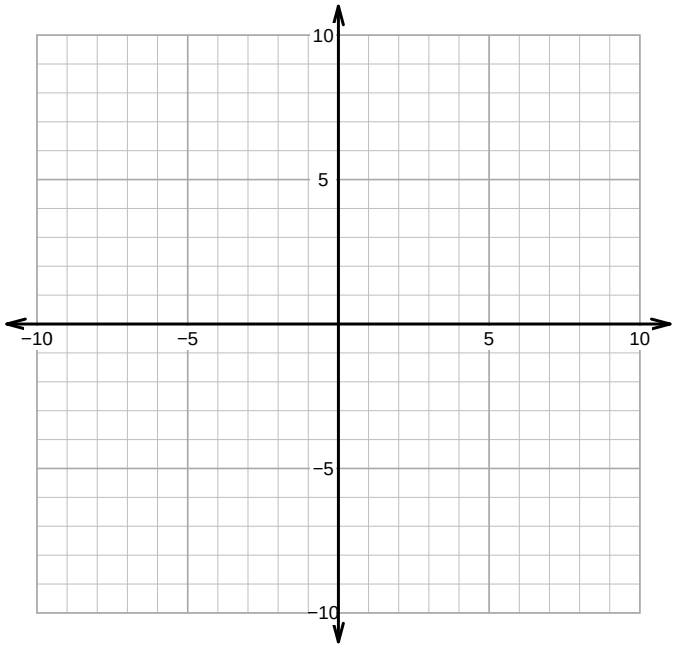
$$y = -\left(\frac{x}{3} + 1\right)^2 + 4$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	

4. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

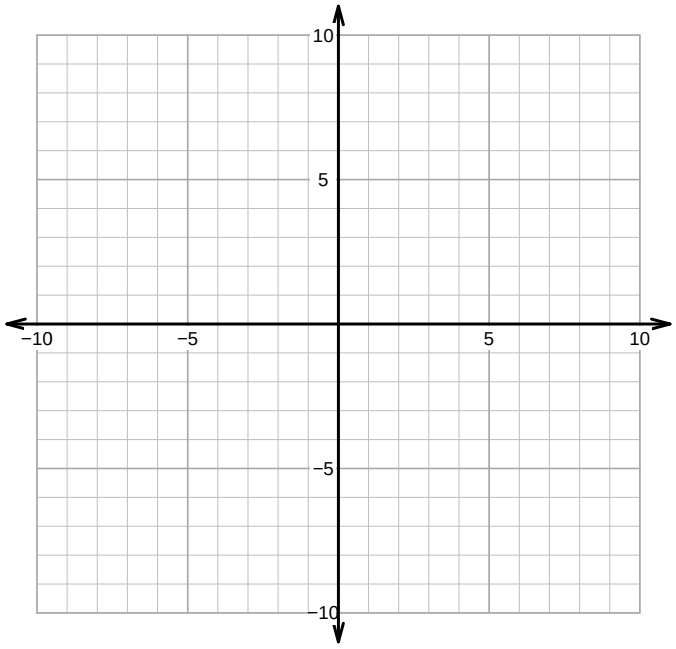
$$y = 3 \cdot 2^{-x} - 6$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	

5. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

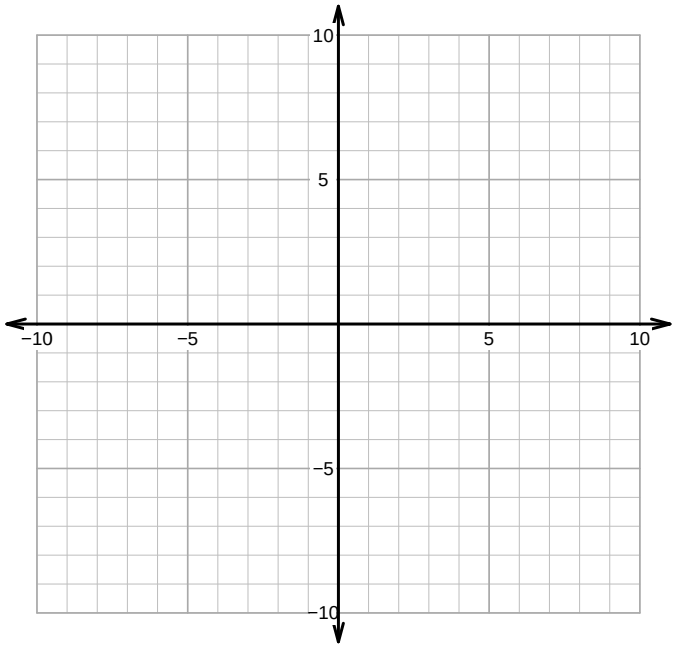
$$y = \frac{(x+4)^3}{8} - 1$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	

6. Make an accurate graph, and describe locations of the features (using interval notation, line equations, and Cartesian coordinates).

$$y = \frac{1}{3-x} - 1$$



Feature	Where
Domain (x interval)	
Range (y interval)	
Positive (x interval)	
Negative (x interval)	
Increasing (x interval)	
Decreasing (x interval)	
Asymptote(s) (line equations)	
Intercept(s) (coordinates)	